

# Woodburning Restrictions in Maricopa County

(Ordinance P-26 and Rule 314)

Ken Hooker



Maricopa County  
Air Quality Department



WALK MORE USE CFLS MORE CARPOOL MORE  
BIKE MORE RAKE MORE TELECOMMUTE  
MORE DRIVE HYBRIDS MORE CONSOLIDATE  
ERRANDS MORE RIDE PUBLIC TRANSPORTATION  
MORE USE ENERGY EFFICIENT APPLIANCES  
MORE CARRY REUSABLE TOTE BAGS MORE  
CONSIDER SOLAR MORE RUN COLD WATER  
CYCLES MORE USE REUSABLE CONTAINERS  
MORE CONSERVE ELECTRICITY MORE REDUCE  
WOODBURNING MORE RECYCLE MORE USE  
ELECTRIC LAWN AND GARDEN EQUIPMENT  
MORE REFUEL AFTER DARK MORE RIDE  
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**CLEAN AIR  
MAKE  
MORE**

# Why restrict woodburning in Maricopa County?

**CLEAN AIR**  
**MAKE**  
**MORE**

WALK MORE USE CFLS MORE  
ERRANDS MORE RIDE PUBLIC  
MORE CONSIDER SOLAR MORE  
REDUCE WOODBURNING MORE  
MORE RIDE THE BUS MORE

*Valley Haze*

USE MORE CONSOLIDATE  
REUSABLE TOTE BAGS  
CONSERVE ELECTRICITY MORE  
REFUEL AFTER DARK  
BIKE MORE RAKE MORE



01/01/2011 09:30 AM

**CLEAN AIR**  
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# Valley Haze

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## Live Camera Sites

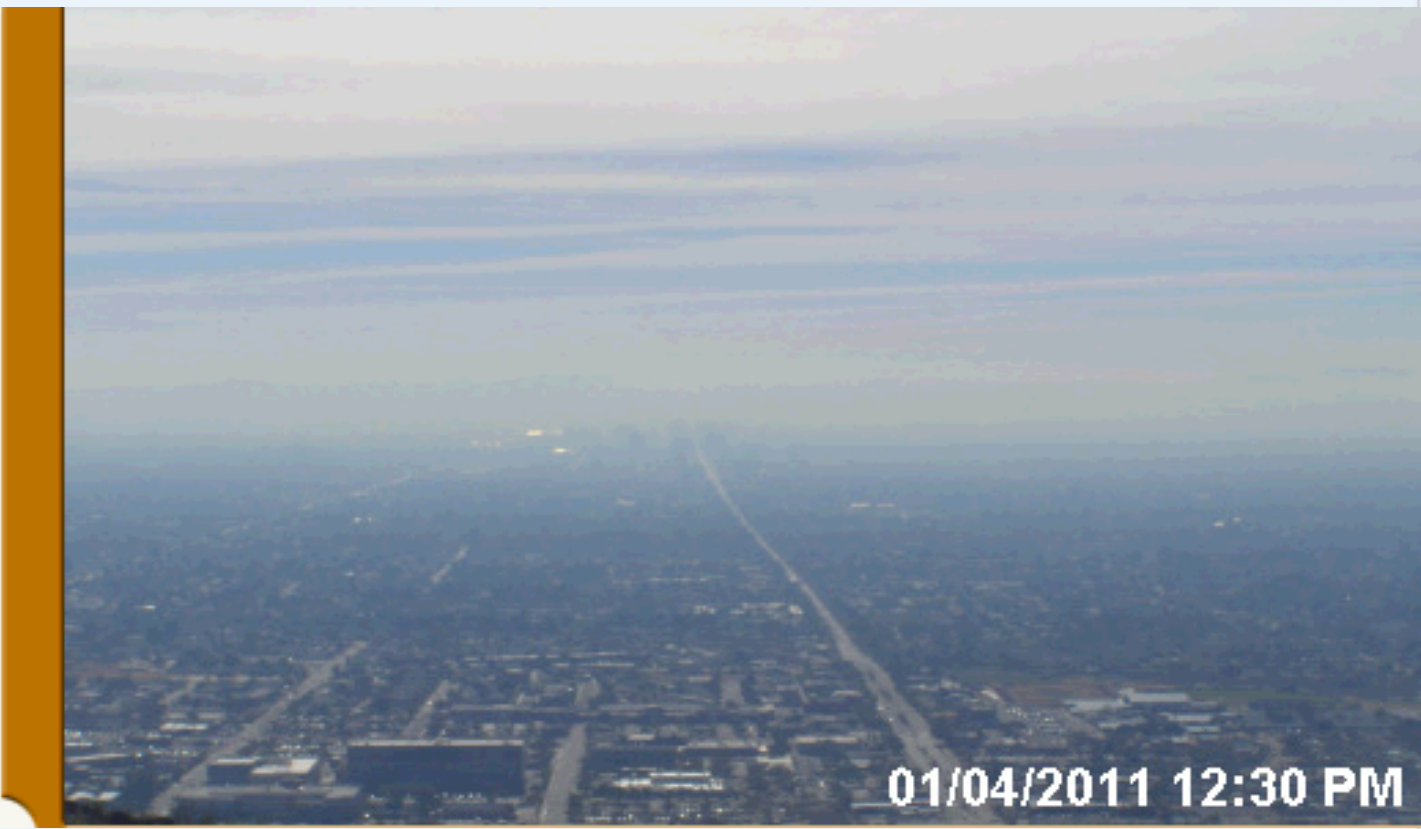
- ☐ South Mountain
- ☐ Estrella Mountains
- ☐ White Tank Mountains
- ☐ Camelback Mountain
- ☐ Superstition Mountains

## Phoenix Region Visibility Index

Current Index 29

[Details](#)

EXCELLENT
GOOD
FAIR
POOR
VERY POOR



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[www.phoenixvis.net](http://www.phoenixvis.net)

What's in that Haze?

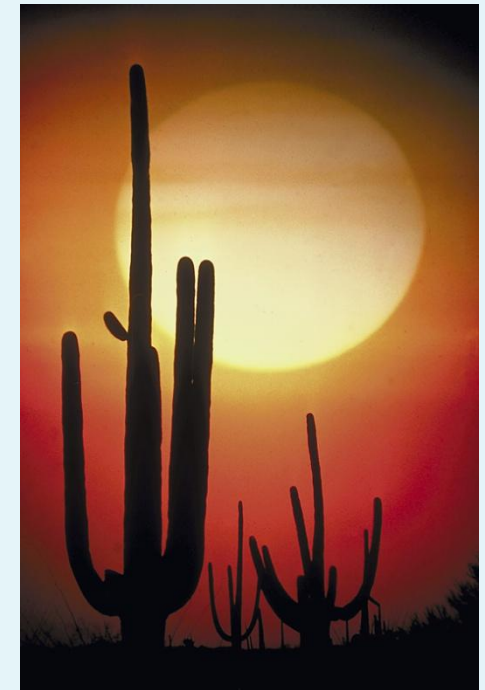
How is it formed?



# Pollutants of Concern



- PM 2.5 – fine particulates
- PM 10 – coarse particulates



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# What is PM2.5/ 10 ?

## **Fine particles.**

**Particles less than 2.5 micrometers in diameter are called “fine” particles. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential and commercial wood burning, forest fires, agricultural burning, and some industrial processes.**

## **Coarse dust particles.**

**Particles between 2.5 and 10 micrometers in diameter are referred to as “coarse.” Sources of coarse particles include crushing or grinding operations, and dust stirred up by vehicles traveling on roads.**

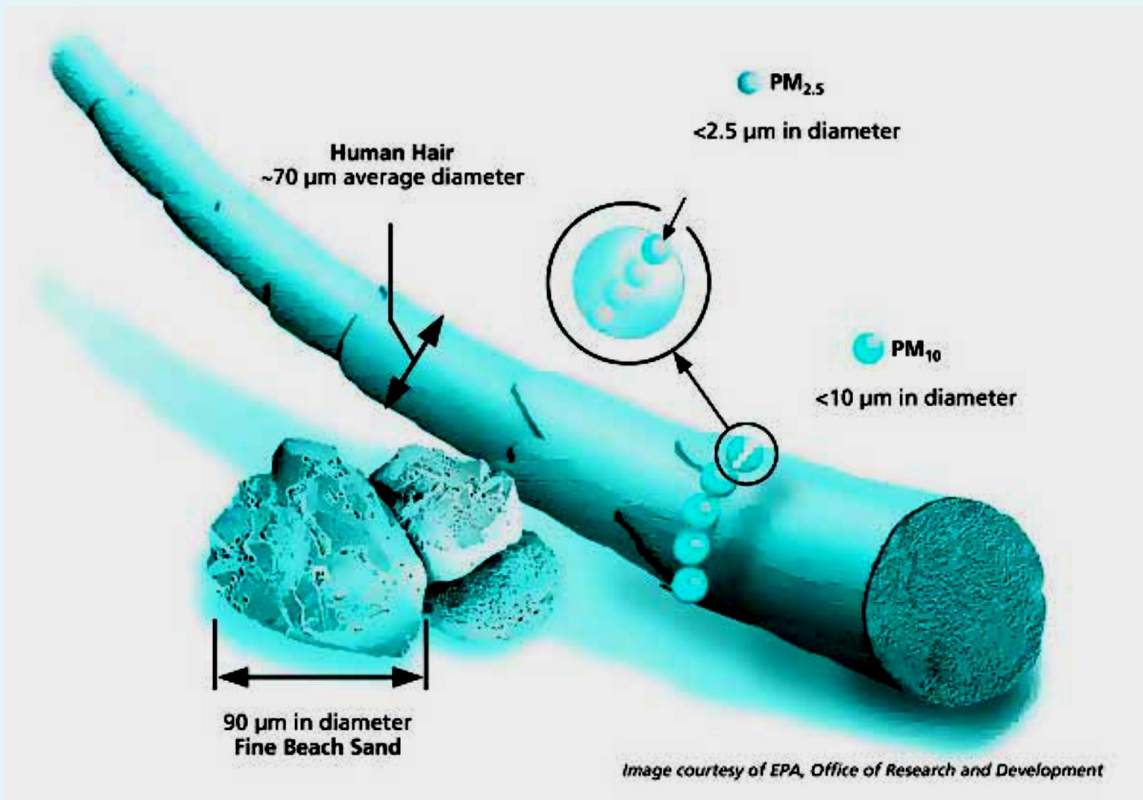


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# Particulate Matter Size

ES MORE CONSOLIDATE  
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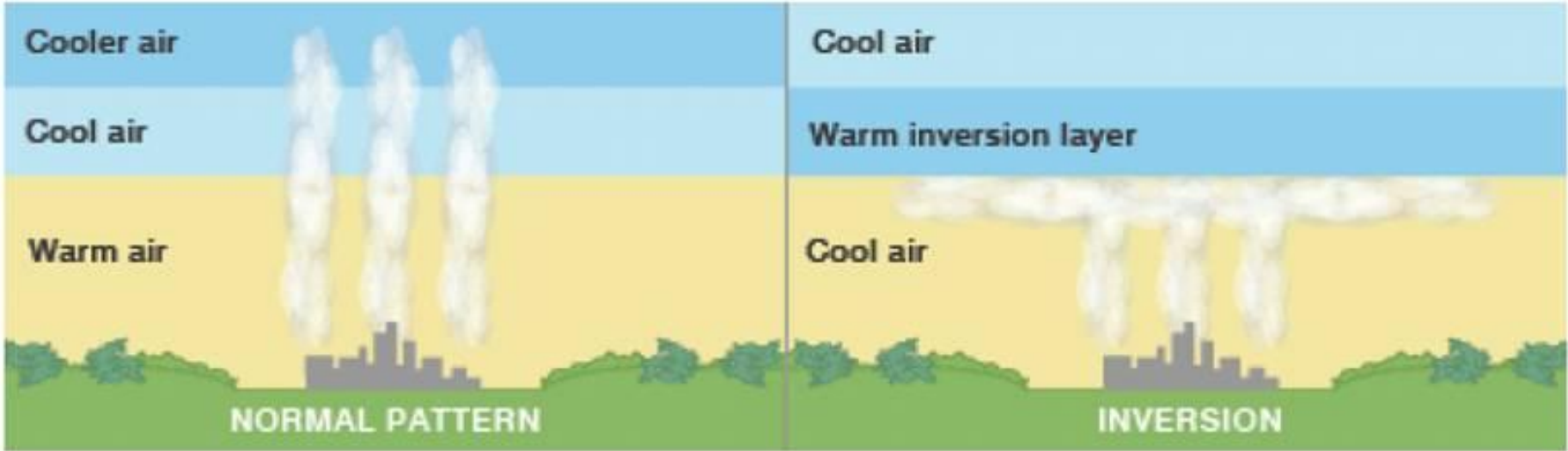
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*Inversion*

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**Inversion + Stagnation  
+ Woodburning =**

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# Valley Haze

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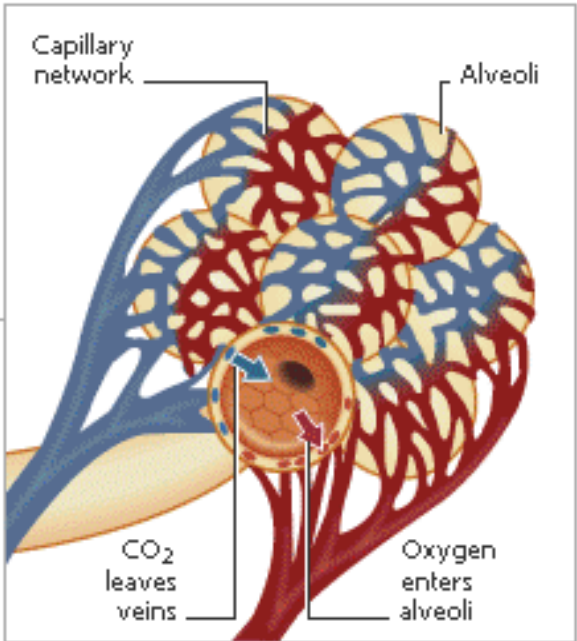
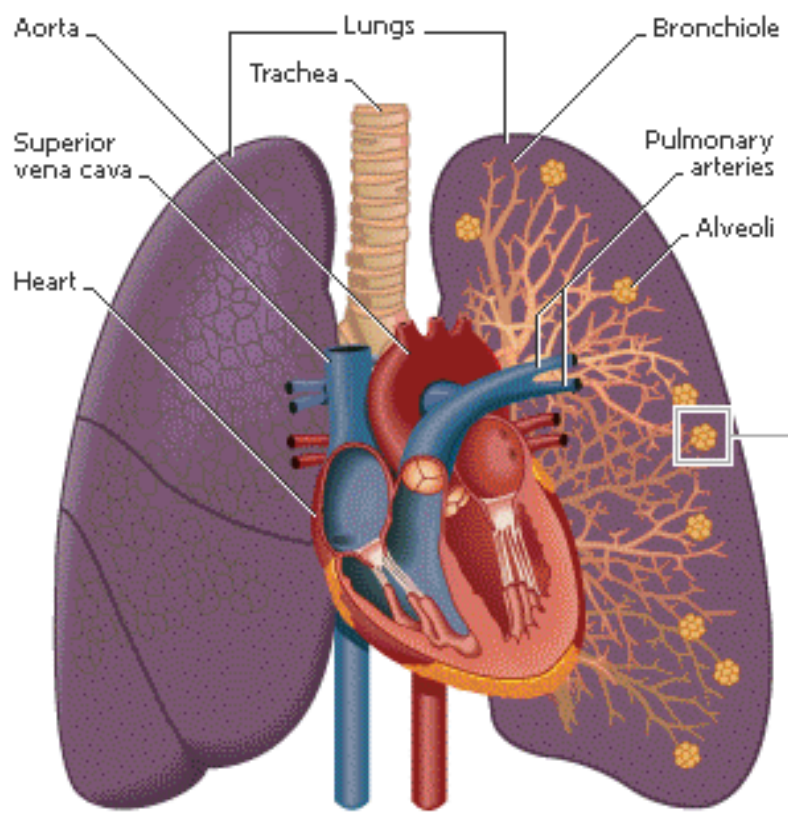
## Health effects and who is most at risk?



Particles smaller than 10 micrometers in diameter can cause or aggravate a number of health problems and have been linked with illnesses and deaths from heart or lung diseases. These effects have been associated with both short-term exposures (usually over a 24-hour period, but possibly as short as one hour) and long-term exposures (years).



# Human Lung



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# Health Effects

- Asthma
- Cardiopulmonary disease
- Bronchitis
- Sensitive groups = children, elderly
- COPD



## *Quick Facts*

- 2010/11 saw the highest 1-hour PM<sub>2.5</sub> concentrations since 2004

Christmas Day = 393.9  $\mu\text{g}/\text{m}^3$

New Year's Day = 377  $\mu\text{g}/\text{m}^3$

**Federal health standard 24 hours = 35  $\mu\text{g}/\text{m}^3$**

## Quick Facts

- Maricopa County has exceeded the current PM2.5 standard 3 of the past 7 years on New Year's Eve (Dec. 31), averaging an AQI value of 100.3
- The maximum 1-hour concentration on New Year's Eve (Dec. 31) occurred at 11pm on 6 of the last 7 years

### AQI COLOR SCALE

<b>GOOD</b>	<b>MODERATE</b>	<b>UNHEALTHY FOR SENSITIVE GROUPS</b>	<b>UNHEALTHY</b>
0-50	51-100	101-150	151-200

## *Quick Facts*

- Maricopa County has exceeded the current PM2.5 standard 6 of the last 7 years on New Year's Day (Jan. 1), averaging an AQI value of 140.5
- The maximum 1-hour concentration on New Year's Day (Jan. 1) occurred before 3am 5 of last 7 years.
- This overwhelmingly suggests that New Year's Day exceedances are due to carry-over smoke from New Year's Eve festivities

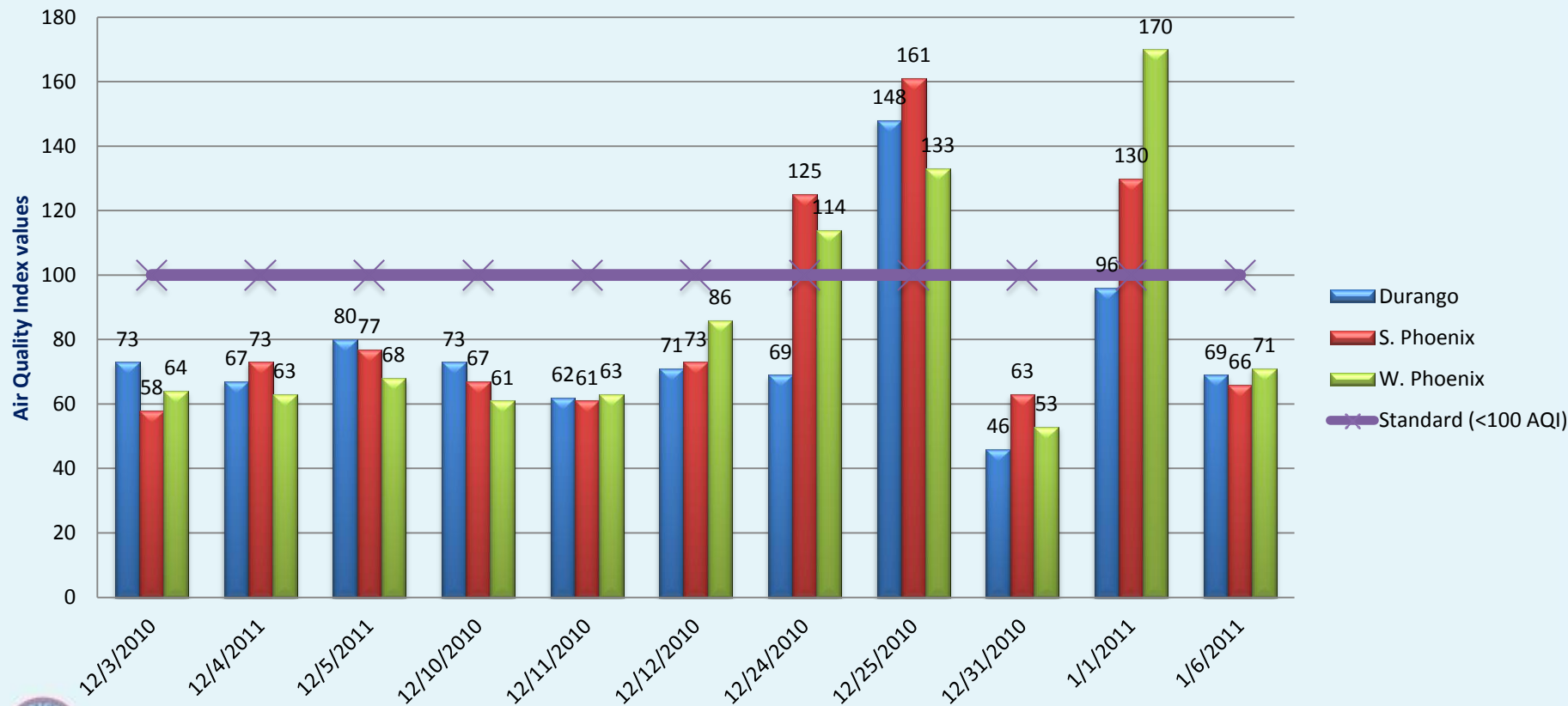
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# Recent PM2.5 levels

USE ENERGY EFFICIENT APPLIANCES MORE  
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No Burn Days PM2.5 levels, 12/3/2010 - 1/6/2011



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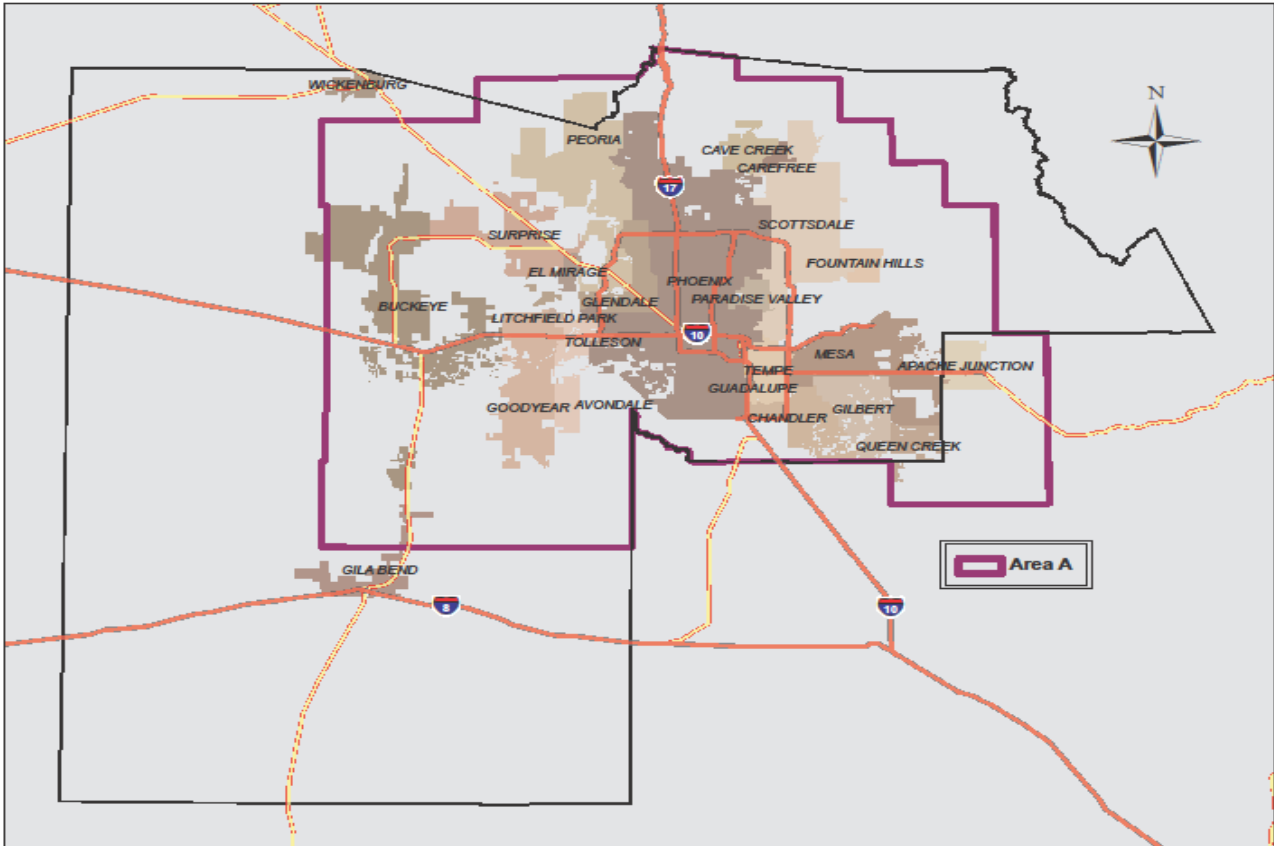


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Area A

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## P-26 Does not apply to:

- Food preparation devices
  - Barbecues
  - Mesquite grills



## P-26 Section 4 Exemptions:

- Annual Exemptions: Sole Source of Heat
  - No NEW exemptions issued after December 31, 1995
  - Exemptions may be renewed
- Temporary Exemptions: Sole Source of Heat
  - Issued for 150 days, if applicant qualifies for economic hardship.
- Emergency Exemptions:
  - Heating system inoperable.
  - Heating system involuntarily disconnected by utility company.
- Inadequate Alternate Source of Heat:
  - When the alternate source of heating is inadequate.







# Restricted Burn Day

What is a No Burn Day  
and how does it affect me?

■



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## *What triggers a no burn day?*

# Arizona Department of Environmental Quality

Issues a Health Watch or a High Pollution Advisory (HPA) for PM10/ PM2.5 or Ozone.

- Health Watch - when the highest concentrations of PM10 or ozone levels may approach the federal health standard.
- HPA - when the highest concentrations of PM10 or Ozone levels may exceed the federal health standard.



## *What triggers a no burn day?*

### When an Health Watch or High Pollution Advisory

the Maricopa County Control Officer declares a restricted burn period, which is effective midnight to midnight of the specified day.



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# No-Burn Day Declared

- Residents and commercial establishments must refrain from using woodburning fireplaces, woodstoves and outdoor fire pits



# MCAQD Response

- How does the Air Quality Department respond to No-Burn Days?
- How does one find out if it's a No-Burn Day?



# *County Response to No Burn Days*

**Citizen Complaints** – Complaints are given highest priority

**Fireplace Patrol** - Inspectors are sent into neighborhood areas that likely to have homes with woodburning fireplaces. Most newer homes do not have wood fireplaces; new fireplaces are likely to be fueled by natural gas.

**Normal Inspection Activities** – Inspectors will be on alert for smoke during normal daily activities



- Website
  - Widget
  - Text alerts
  - Eblast
- ### Communication

CLEAN AIR MAKE MORE June 5, 2010



**AIR QUALITY UNHEALTHY FOR SENSITIVE GROUPS**

**SENSITIVE PEOPLE SHOULD LIMIT OUTDOOR ACTIVITY**

[LEARN MORE »](#)

 woodburning
  leaf blowers
  off-highway vehicles

**HPA** Did you know a Health Watch or HWV means the highest concentration of pollution may approach the federal health standard?

CLEANAIRMAKEMORE.COM

THEIR ARE NO RESTRICTIONS IN EFFECT AT THIS TIME, INCLUDING WOOD BURNING RESTRICTIONS.

### CLEAN AIR MAKE MORE

MARICOPA COUNTY'S INITIATIVE TO PROMOTE CLEANER AIR AND HEALTHIER LIVES.

Search

OUR AIR ▾ MAKE THE COMMITMENT ▾ FOLLOW US NEWS & EVENTS ▾ THE CLASSROOM ▾ CHAMPIONS ▾



#### AIR QUALITY STATUS

-  OK to burn wood
-  OK to ride off highway vehicles
-  OK to use leaf blowers

**MAKE THE COMMITMENT »**

**Pollution is a Real Heart-Breaker, Could Cause Cardiac Arrest**  
The dirtier the air, the more likely people are to suffer sudden cardiac arrest, new research from Australia shows. "More from Clean Air" wants to keep your heart healthy by providing you with simple actions you can take every day to reduce the air pollution in the Valley.

**TAKE THE CLEAN AIR POLL**  
Who do you think should be responsible for protecting the environment?

**DOWNLOAD THE DESKTOP WIDGET**  
Download the Clean Air Make More widget and receive air quality information on your

**TELL YOUR FRIENDS SPREAD THE WORD**  
Like us on Facebook  
Like 315 likes. Sign up to see what your friends like.



## Make the Clean Air Commitment

- Our Web page: [www.cleanairmakemore.com](http://www.cleanairmakemore.com)
- Sign up for email alerts and text messages



- <http://www.maricopa.gov/aq/divisions/compliance/dust/fireplaces/WoodburningToolkit.aspx>

# We all need to get involved!

- Policymakers
- Stakeholders
  - Healthcare Advocates
  - Environmental Advocates
- Industry
  - Trade Organizations
  - Businesses
- General Public



**Check Before You Burn !**

**Call: Burn Line**

**602-506-6400**

**or**

**[www.CleanAirMakeMore.com](http://www.CleanAirMakeMore.com)**



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*Questions?  
Comments?  
Concerns?*

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MAKE  
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